MAINE LEARNING TECHNOLOGY INITIATIVE

Professional Development

Professional Development has been the mainstay of the MLTI since 2002, and we encourage middle and high schools across Maine to take advantage of this free service. We, the MLTI Integration Mentors, can come to your school and deliver any of the workshops listed here, or we can offer sessions tailored to your school's goals. We can work with your whole staff or with department or team groups, either face-to-face or online in a virtual classroom. For more information or to schedule a workshop, please visit http://maine121.org/pd And... don't forget to remind your staff that we offer free webinars for MLTI teachers every Thursday at 3:15 PM and 7:15 PM.

First Steps

Digital Citizenship

Students are using digital media as much as 7.5 hours each day, so teachers must empower them to think critically and make informed choices about how they create, communicate, and treat others and themselves in their digital world. We will share how schools are incorporating the Common Sense Media Curriculum to teach students about creating positive communities. The topics we will address include Digital Life, Cyberbullying, Digital Footprints, Internet Safety, and Respecting Creative Rights.

Gaining Instructional Minutes By Discovering Mac OS X

The software on the MLTI MacBook can help teachers avoid classroom distractions and get their students "on task." We will show teachers how to streamline and enhance communication with students and colleagues through a deeper understanding of the integration of the tools present on every MLTI device. Teachers will learn how to gain time back into their day.

iWork at Work: Writing, Analysis, and Presentation

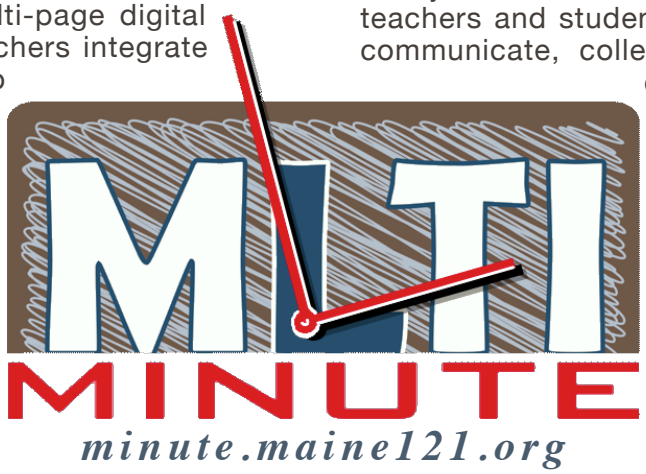
iWork helps teachers promote, support, and model creative and innovative thinking in their classrooms. Teachers will learn the fundamentals of iWork as they create a multimedia presentation using Keynote, a newsletter using Pages, and a data collection and analysis project using Numbers. We will help them understand how to promote student reflection using collaborative tools and customize student learning activities to address different learning styles, working strategies,and abilities.

iLife in Action: from Storybooks to Podcasts to Movies

Today's students need to be creators, not just consumers of media. We will help teachers gain fundamental skills with the iLife application suite (iPhoto, GarageBand, iMovie, iDVD, and iWeb) and discuss how to use these tools in today's learning experiences. Teachers will create and share iPhoto slideshows and storybooks, audio and video podcasts, and movies as they discuss how to integrate them into their classroom practice.

Introduction to NoteShare

NoteShare is a powerful application for creating and sharing media-rich, multi-page digital notebooks. We will help teachers integrate all forms of media into notebooks for a variety of purposes including gathering resources for a unit, organizing notes and research, and project planning. We will also show teachers how they can distribute or share these notebooks with students and colleagues for collaborative work.



Getting to Know Studywiz

Studywiz is an online space that provides teachers and students an easy way to organize, communicate, collect, evaluate and reflect on classroom content – in real time. We will show teachers how to create and manage classes and groups; how to create activities including assignments, discussions, polls, games, and assessments; and how to manage files, calendars, and messaging within the MLTI Studywiz System.

I See What You Mean: Images and Learning

Our students have grown up bombarded with images, and we must promote visual literacy to improve their understanding and help them create new meaning. Students must become savvy creators rather than mere consumers of images in multiple forms. We will share exemplary images, and show teachers how to use Keynote, iPhoto, iMovie, and Comic Life to create their own compelling visuals.

Unlocking the Digital Door

Teaching today requires the opening of digital doors, but for some these doors are more mysterious than inviting. We will remove some of that mystery by helping teachers begin to build virtual learning environments to augment their classrooms. We will also help them create networks to support their professional learning using Twitter, FaceBook, and other social networking tools and web resources.

The Research Process

An unprecedented wealth of information is available to students in our world. It is essential that they be equipped with skills and strategies to find, access, validate and use the right information for their inquiries. We will guide teachers through every stage of the modern, computer-based research process, including the framing of questions, the elective use of search tools, copyright issues, and reflective processes for research refinement.

Literacy

Strategies for Reading Digital Text

Students do much of their reading on a screen and digital text requires some new practices and strategies. We will model how to find digital reading material related to specific content at a wide range of reading levels, and how to collect these materials in NoteShare notebooks. We will also show teachers how to distribute these notebooks to students for reading online and offline as we model and practice strategies for before, during, and after reading.

Digital Tools for Improving Listening and Speaking Skills

Listening and speaking are two essential elements of literacy. We will model and practice strategies for helping students become better listeners and speakers, and explore the wealth of listening material available online. We will also demonstrate how applications on the MLTI MacBook, including iChat, iTunes, NoteShare and Photo Booth, can be used for listening and speaking practice, as well as for capturing speaking performances for assessment.

Visit maine121.org/pd for more information.

Promoting Literacy with Cartoons, Comics, and Graphic Novels

Some students prefer to give and receive information through images while others prefer text, but to be truly literate, students must be fluent in both. We will show teachers how to promote literacy and help students build bridges between images and text using cartoons, comics, and graphic novels. Teachers will practice analyzing and annotating cartoons, using comics as writing prompts, and creating their own comics with Comic Life as they develop a NoteShare notebook of activities and resources.

Integrating Technology Into the Writing Process

Research shows that student writing improves when students use computers for all steps of the writing process, from prewriting activities through publication. We will guide teachers in exploring strategies, ideas, and resources for digital writing as we discuss brainstorming; researching and organizing ideas; drafting, revising and redrafting; giving and getting feedback; editing; and publishing. Our toolkit will include WriteRoom, NoteShare, OmniGraffle, and Pages.

Finding, Creating, Using Media

Marvelous MARVEL

MARVEL, Maine's Virtual Library, gives Mainers free access to huge collections of articles and abstracts from journals, newspapers, magazines, and reference books. We will guide teachers in an exploration of these valuable resources and discuss how to use the databases to find curriculum-related reading materials that match individual students' reading levels and interests. We will also discuss how students can use MARVEL resources in their research projects and teachers can use them for professional research.

Use Primary Source Material Digitally

Historic film, documents, broadcasts, photographs: there is so much material available online for students studying history, but teachers and students must know how to find this material and how to use it to enhance their understanding of the past. We will guide teachers in finding primary source material online, unpacking these resources via tools such as Comic Life and Google Earth, and contributing new learning to historical study.

Digital Storytelling for the Humanities

The use of story in the humanities is incomparably powerful, whether for a historical timeline, poetry, a study of culture, or an autobiography. Using the production tools on the MLTI devices, students can create digital storytelling documents that can deepen their understanding of a subject and develop their skills in visual literacy. We will discuss how to plan and develop digital storytelling projects, and examine what factors contribute to a successful, high-quality project.

Success in Student Podcasting

Using audio production tools on the MLTI device, such as Garageband, students can create high-quality podcasts that can be used to spread a message, capture their thinking, enhance a project, and bring new understanding to their own writing process. We will help teachers get started on podcast projects and review tips on how to enhance product quality as well as how to distribute a podcast once it has been created.

Thinking Spatially about Learning

Students are able to grasp abstract concepts more securely when these concepts are grounded in a real-world framework, and the use of place can provide that grounding. We will guide teachers in learning how to provide a spatial framework through the use of digital visualization tools such as Google Earth, My World GIS, and SketchUp Pro. This session will be of use to all teachers who are looking to incorporate spatial learning into their practice.

A Wider World: Google Earth for Research, Writing, and Sharing

Google Earth is a powerful tool for exploring the planet and visualizing place. It also includes multiple functions for overlaying data on the globe that can add rich content and provide dynamic learning tools to every classroom. We will demonstrate and give teachers hands-on experience with uses of Google Earth that assist research, incorporate writing strategies, and enable collaboration on place-based projects that will enrich student learning.

Math and Science

Math Apps for Understanding

Technology integration in math allows for instruction in skills as well as deep conceptual understanding and outlines multiple pathways to meet standards. We will lead teachers in an exploration of some of the applications and applets, including the National Library of Virtual Manipulatives and GeoGebra, available on the MLTI devices. We will discuss how they might be used and address challenges that lie ahead for math teachers as they adapt teaching practices to new, dynamic curricula.

Formative Assessment in Science

Why Wait for the Science Test?

In science classes, students often labor under misconceptions and misunderstandings that teachers don't really know about until the unit test. Digital tools and the web provide access to assessment techniques, including Assess2Learn, ConcepTest, and Diagnoser, that address various aspects of teaching and learning in the science classroom. We will introduce, discuss, and work with these tools as teachers discover how to use them effectively as part of their classroom practice.

Models and Simulations

Interactive models and simulations can show phenomena that might not be observable in other ways while providing in-depth and relevant engagement with science content. They also open a gateway to inquiry-based learning through direct experience with content. We will provide teachers with hands-on experience with applications like ME Explorer and NetLogo, and applets from sources like PhET, as they learn to integrate modeling into student science.

GeoGebra and Grapher:

A Winning Math Combination

GeoGebra is a rich and powerful tool that supports the integration of geometric and algebraic representations in a coherent visualization space and has the capacity to build new interactive applets. Grapher allows students to typeset equations and plot functions in 2D and 3D, and it has features appropriate for advanced data analysis and calculus. We will guide teachers in integrating these tools into their teaching practice to transform and enrich math learning.

Collecting and Analyzing Data

Computer tools and probes can remove the tedium from data collection and provide real-time graphic display for analysis while improving accuracy and reducing human error. We will model, and teachers will practice using applications on the MLTI device, including Data Studio, Logger Pro, and Numbers, to provide unique opportunities for students to explore science concepts and research, reach conclusions, and answer essential questions based on evidence and data.

Vital Signs: Citizen Scientists, Real Data

Vital Signs is a field-based, citizen science education program where students and scientists collect and analyze environmental data across freshwater and coastal ecosystems. This process involves rigor and relevance and can cross all disciplines. We will model and teachers will practice developing an essential question about invasive species in Maine, finding pertinent data in Vital Signs, organizing that data using Numbers, and projecting the results onto maps via Google Earth.

Access to Learning

Accessible Instructional Materials (AIM) in the Classroom

Curricular barriers for students who have difficulty reading or seeing text can be removed by selecting, creating, or converting curriculum materials in multiple formats, including digital text, audio, large print, and Braille. We will introduce teachers to a variety of applications and online resources for making curriculum accessible for all learners, including Text to Speech, QuickTime, iTunes, and services such as Bookshare and Recording for the Blind and Dyslexic.

Strategies & Tools for RTI Tier 1 Instruction

In RTI frameworks, Tier 1 refers to evidence-based instructional practices used by general education teachers. We will show teachers how MLTI applications can be used in the pursuit of effective and meaningful implementation of these practices, particularly those that support multiple ways for students to express what they know and can do. Teachers will practice using Text to Speech, QuickTime, iTunes, iPhoto, GarageBand, NoteShare, OmniGraffle, and other applications.